

Chapter 1

Assessment Guide Educators

A guide to the 2014 assessment content from GED Testing Service

June 2012

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Assessment Guide for Educators Overview

Introduction

In 2014, GED Testing Service will unveil a new assessment that ensures the GED® testing program is no longer an endpoint for adults, but rather a springboard for further education, training, and better paying jobs. Four content-area assessments—Reasoning Through Language Arts (RLA), Mathematical Reasoning, Science, and Social Studies—will measure a foundational core of knowledge and skills, and an additional performance level will certify that adults are ready for college and careers.

The Assessment Guide for Educators is a frontline resource that helps adult educators and administrators better understand the content of the new assessment. This guide is used to highlight the new assessment's item types, assessment targets, guidelines for how items will be scored, and much more.

Continuing the Tradition of Opportunity

The new assessment system will continue to provide adults the opportunity to earn a high school credential, as it's done since 1942. It will measure career- and college-readiness skills that are not only the focus of today's curriculum, but are also needed for success in both workforce and college programs.

But it doesn't stop there. GED Testing Service is taking a significant leap forward in score reporting. The enhanced score report will provide a profile of scores that gives information about test-taker strengths and areas of developmental need with each test content area. This more detailed scoring will benefit test-takers, teachers, colleges, and employers.

In addition, GED Testing Service has added the opportunity for adults to demonstrate their readiness for workplace and college programs through a new, additional endorsement that can be added to a test-taker's high school credential.

Today's world is dramatically different than when GED Testing Service introduced the 2002 test. Adults want opportunities

"The Assessment
Guide for Educators is a
frontline resource that
helps adult educators
and administrators better
understand the content of
the new assessment."



Find more information about the new

assessment in chapters two and three of the Assessment Guide for Educators:

- Depth of Knowledge summary
- Assessment targets
- Passage exemplars
- Passage selection specs
- Scoring rubrics
- Reporting category descriptors
- Much more

for better paying jobs, and ways to support their families. The new assessment, and its associated parts, will help adults better demonstrate those skills and abilities sought by both employers and colleges.

Definition of Readiness

GED Testing Service has worked closely with various consulting groups, organizations, and representatives from K-12, two-year and four-year institutions, and the employment sector in order to shape the Assessment Targets for the new assessment. The new assessment targets are derived from the Common Core State Standards (CCSS) and similar careerand college-readiness standards in place in Texas and Virginia. The new Assessment Targets are informed by research that suggests a clear and elegant set of essential skills necessary for success in a credit-bearing postsecondary course, as well as in job training programs. The targets are:

- Clear, understandable, and consistent
- Include rigorous content and require applications of knowledge through a range of levels of cognitive complexity
- Based on evidence

The Bottom Line

A GED® test-passer must remain competitive with students who complete their high school credentials in the traditional manner. As the education community embraces CCSS (and other career- and college-ready standards in place in states like Texas and Virginia that have not adopted the CCSS) the new assessment from GED Testing Service will meet the market's demand for test-takers to be able to demonstrate these high-level skills.

National Curriculum Survey evidence suggests that test-takers who demonstrate fluency with the skills measured in the new assessment will be better prepared for what they plan to do with their lives. A graduate will no longer hold a high-school equivalency credential, but a roadmap for life's success. The GED® testing program will fulfill its promise to be a stepping-stone toward a college classroom or a better career and a family sustaining wage.





"A GED® test-passer must remain competitive with students who complete their high school credentials in the traditional manner."

"As the education community embraces CCSS (and other careerand college-ready standards in place in states like Texas and Virginia that have not adopted the CCSS) the new assessment from GED Testing Service will meet the market's demand for test-takers to be able to demonstrate these high-level skills."

Item Types Across Content Areas

The variety of item types available for use on the GED® test is larger now, thanks to computer-based testing. The computer-based testing platform gives the opportunity to use interactive item types that are not possible on a pencil-and-paper test. Each content area test features an assortment of item types listed below, some that already appear on the 2002 Series GED® Test and others that are new.

"The computer-based testing platform gives the opportunity to use interactive item types that are not possible on a pencil-and-paper test."

Item Types in Reasoning Through Language Arts

The GED® RLA Test on the new assessment will be composed of several passage sets. Each passage set will include text ranging from 400-900 words and six to eight items (See *Chapter Three: Passage Requirement Synopsis* for more detailed information on RLA passages). The RLA Test will feature:

- Multiple choice items
- Brief short answer items
- Several different types of technology-enhanced items
- Cloze items embedded in passages
- One 45-minute extended response item

These items assess the full depth and breadth of skills outlined in the GED® RLA Assessment Targets. Test-takers can apply different cognitive strategies with the wide variety of item types, demonstrating proficiency with the RLA content. This allows GED Testing Service to assess the targeted content at a number of Depth of Knowledge (DOK) levels (See *Chapter Two: Depth of Knowledge Summary* for more information).

See below for an overview of the types of items found on the GED® RLATest.

Multiple choice (MC) items will be used to assess aspects of virtually every indicator listed in the GED® RLA Assessment Targets. This item type continues to be a reliable

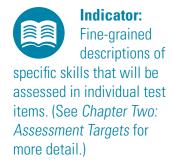


method for measuring skills and knowledge at a range of cognitive levels in a standardized manner. Unlike the multiple choice items on the 2002 Series GED® Test, the MC on the new assessment will only have four answer options, rather than five. This is the only content-area test that each MC item refers to a passage.

Fill-in-the-blank (FIB) items can also be used to measure a wide range of skills identified in the GED® RLA Assessment Targets. In particular, they may provide the unique opportunity to assess vocabulary skills at a higher cognitive level than MC items might by requiring test-takers to supply their own synonyms, rather than choosing from four options. Fill-in-the-blank items can also function like brief, easily scored short answer items (see below) that require test-takers to create a short phrase or complete a sentence in order to analyze a text feature within a passage.

Drag-and-drop items are interactive tasks that require test-takers to move small images, words, or short phrases to designated drop targets on a computer screen. They are often used to assess a test-taker's ability to classify and appropriately sequence information. For example, a drag-and-drop task might require test-takers to order events in a passage on the basis of chronology or cause and effect. They may also provide opportunities for test-takers to analyze an author's arguments by classifying the arguments as true or false. These items may employ a variety of different graphic representations, including Venn diagrams, timelines, and many others. Another way the new GED® assessment may employ the drag-and-drop technology is in editing tasks that require test-takers to reorder paragraphs within a passage or sentences within a paragraph.

Cloze items are items with multiple response options embedded directly within a text. On the RLA Test, this item type will be used primarily to assess the language skills, such as conventions of Edited American English, standard usage, and punctuation, outlined in the GED® RLA Assessment Targets. These items are designed to mimic the editing process as authentically as possible; therefore, variations of a phrase will appear as options in drop-down menus within the text. Once the test-taker selects an option, the answer will show on the screen as part of the text.



Short answer (SA) items allow test-takers a greater opportunity to demonstrate understanding of cognitively complex skills than what is allowed by multiple choice or multiple select items. Only the full range of GED® Reading Assessment Targets used in developing the RLA Test are eligible for assessment through SA items; the Language Assessment Targets and Writing Assessment Targets will not include SA items. For more information on how SA items will be created, employed, and scored, see *Chapter Three: Short Answer Development Process* document.

Extended response (ER) items on the RLA Test will be 45-minute tasks that require test-takers to analyze one or more source texts in order to produce a writing sample. The source texts will not exceed 650 words. These ERs will be scored on three dimensions as outlined in the Extended Response Multi-trait Scoring Rubric (found in Chapter Three). The first trait on the rubric pertains to how well test-takers analyze arguments and gather evidence found in source texts in support of the positions that they take in their writing samples. The second trait scores the writing samples on the basis of how well the writing is developed and organized. The writing samples are also scored for how well test-takers demonstrate fluency with conventions of Edited American English, per the third trait on the rubric. Each of these three traits will be scored on a four-point scale. The prompts for the ERs will be developed to elicit analytic writing that effectively uses evidence from the source text(s). For more information on how the ERs will be scored, see the Chapter Three: Extended Response Scoring Rubrics.

Item Types in Mathematical Reasoning

The new GED® Mathematical Reasoning Test will feature:

- Multiple choice items
- A variety of technology-enhanced item types
- Cloze items

These items assess the full depth and breadth of skills outlined in the GED® Mathematics Assessment Targets. Employing a wide variety of item types should also allow us to assess the targeted content at a number of Depth of



Cloze item: Cloze items contain

response opportunities embedded directly within a text. The new GED® assessment will employ this item type primarily to assess language skills in tasks designed to mimic the editing process in an authentic manner. The items will present a brief text with three to six dropdown menus embedded within. The drop-down menus will contain several answer options which. when selected, will appear within the text itself.

Knowledge (DOK) levels, as they each provide opportunities for test- takers to apply different cognitive strategies to demonstrate proficiency with Mathematics Test content (See *Chapter Two: Depth of Knowledge Summary* for more information). Each item type on the Mathematics test may be presented either as a discrete item or as part of an item scenario in which two or three items pertain to a single stimulus. Stimulus materials may include brief text, graphs, tables, or other graphic representations of numeric, geometric, statistical, or algebraic concepts.

Multiple choice (MC) items will be used to assess aspects of virtually every indicator listed in the GED® Mathematics Assessment Targets. This item type continues to be a reliable, standardized method for measuring skills and knowledge at a range of cognitive levels. Unlike the multiple choice items on the 2002 Series GED® Test, the MC on the new assessment will only have four answer options, rather than five.

Fill-in-the-blank (FIB) functionality on the Mathematics Test gives the test-taker the opportunity to type in the numerical answer to a problem or to enter an equation using keyboard symbols or the character selector. Another use for fill-in-the-blank items might be to allow test-takers to express a one-word or short phrase answer to questions about mathematical reasoning.

Cloze items with drop-down menu functionality will be used to give test-takers opportunities to choose the correct math vocabulary or numerical value to complete statements. As with editing tasks in the RLA Test, the test-taker is given the advantage of seeing the complete statements on screen in an authentic way. Cloze items are frequently also used to make comparisons between two quantities. In the example below, the comparative terms would populate the drop-down menu.

greater than $\sqrt{71}$ is equal to 8^2 less than

"Employing a wide variety of item types should also allow us to assess the targeted content at a number of Depth of Knowledge (DOK) levels."



Depth of Knowledge (DOK)

is a model used to analyze a wide range of curricular materials and assessments (both large scale and classroom) "on the basis of the cognitive demands required to produce an acceptable response."

Source: http://www.aps.edu/rda/documents/resources/Webbs_DOK_Guide.pdf

Hot spot items consist of a graphic image with virtual "sensors" placed strategically within the image. This item type can be used to measure skills with regard to plotting points on coordinate grids, on number lines, or on dot plots. Test-takers can also select numbers or figures that have a particular characteristic or create models that match given criteria (e.g. given a three-dimensional figure, the test-taker could select its edge or create a model of two-thirds of a rectangle divided into 15 sections). Hot spot items create a much more authentic experience for test-takers because they provide opportunities for test-takers to navigate within a two-dimensional field to demonstrate their proficiency with a variety of quantitative, algebraic, and geometric skills.

Drag-and-drop items are interactive tasks that require test-takers to move small images, words, or numerical expressions to designated drop targets on a computer screen. They can be used to create expressions, equations, and inequalities by dragging numbers, operators, and variables into boxes that form an equation. Drag-and-drop items can also be employed in the service of demonstrating classification and sorting skills as they provide an opportunity for test-takers to organize data based on a set of characteristics. The test-taker can also order steps in a process or solution or match items from two sets.

Item Types in Science

The new GED® Science Test will feature:

- Multiple choice items
- Brief short answer items
- A variety of technology-enhanced items
- Cloze items

These items assess the full depth and breadth of skills outlined in the GED® Science Assessment Targets. Employing this variety of item types should also allow us to assess the targeted content at a number of Depth of Knowledge (DOK) levels. Each item type provides opportunities for test-takers to apply different cognitive strategies to demonstrate proficiency with Science practices and content knowledge (See *Chapter Two: Depth of Knowledge Summary* for more

information). Each item type on the Science Test may be presented either as a discrete item or as part of an item scenario in which two or three items pertain to a single stimulus. Stimulus materials may include brief text, graphs, tables, or other graphic representations of data or scientific concepts. Many of the Science Test stimuli will pertain to the focusing themes of "Human Health and Living Systems" and "Energy and Related Systems" as identified in the GED® Science Assessment Targets. (See *Chapter Two: Assessment Targets: Science* for more information)

Multiple choice (MC) items will be used to assess aspects of virtually every Science Practice and Content Topic listed in the GED® Science Assessment Targets. This item type continues to be a reliable, standardized method for measuring skills and knowledge at a range of cognitive levels. Unlike the multiple choice items on the 2002 Series GED® Test, the MC on the new assessment will only have four answer options, rather than five.

Fill-in-the-blank (FIB) functionality on the Science Test gives a test-taker the opportunity to type in the correct response when potential answers have little variability. For example, this item type can be used when an item calls for a response to a specific calculation or when the test-taker is required to excerpt a word or phrase from a text to demonstrate understanding of an idea or vocabulary term. More specifically, a particular item measuring data interpretation skills in a science context could call for a single word or short phrase to describe a trend on a graph.

Cloze items with drop-down menu functionality embedded within a brief text will be used to give test-takers opportunities to choose the correct response to complete statements. As with editing tasks in the RLA Test, test-takers are given the advantage of seeing the complete statements they create in an interactive manner on screen. These items can measure many of the same skills that fill-in-the-blank items can, though they provide a selection of possible responses from which test-takers can choose.

Drag-and-drop items are another type of interactive task that require test-takers to move small images, words, or numerical expressions to designated drop targets on a computer screen. On the Science Test, this item type can be used to measure a test-taker's skills with regard to assembling data or comparing



Science Practice and Content

Topic: The Science Assessment Targets and Social Studies Assessment Targets are broken into a two-ply system. The top layer is the *practices* and the second layer is the *content topics*. Every item will be aligned to one practice and one content topic.

"Many of the Science Test stimuli will pertain to the focusing themes of "Human Health and Living Systems" and "Energy and Related Systems" as identified in the GED® Science Assessment Targets." and classifying information. For instance, an item could ask test-takers to place organisms in specific locations on a food web. Other examples of tasks well-suited to drag-and-drop items might be ones in which test-takers place labels on a graph or chart, fill in a Venn diagram with data from a brief textual stimulus, order steps in a scientific experiment, or place data points from a given context into a chart, table, or graphical model.

Hot spot items consist of a graphic image with virtual "sensors" placed strategically within the image. They can be used to measure a test-taker's understanding of relationships between data points cited from a textual or graphic stimulus. For example, a hot spot item could contain a pedigree chart requiring test-takers to select offspring with a particular trait in order demonstrate their understanding of heredity. Other items might ask test-takers to select data or points in a graph, chart, or table that support or refute a given conclusion or to select parts of a specific model given some selection criteria (e.g. a model of the human body, a cladogram, or a matter-cycle diagram).

Short answer (SA) items provide opportunities for test-takers to demonstrate a wide range of cognitive strategies as they compose their own brief responses to the wide range of content outlined in the GED® Science Assessment Targets. This item type could be employed to determine whether a test-taker can provide a valid summary of a passage or model, create and successfully communicate a valid conclusion or hypothesis, or derive evidence from a textual or graphic stimulus that specifically and accurately supports a particular conclusion.

Item Types in Social Studies

The new GED Social Studies Test will feature:

- Multiple choice items
- A variety of technology-enhanced items
- Cloze items
- One 25-minute extended response item

These items assess the full depth and breadth of skills outlined in the GED® Social Studies Assessment Targets.

"On the Science Test, drag-and-drop item types can be used to measure a test-taker's skills with regard to assembling data or comparing and classifying information." Employing this variety of item types should also allow us to assess the targeted content at a number of Depth of Knowledge (DOK) levels, as they each provide opportunities for test-takers to apply different cognitive strategies and demonstrate proficiency with social studies content (See Chapter Two: Depth of Knowledge Summary for more information). Each item type on the Social Studies Test may be presented either as a discrete item or as part of an item scenario in which two or three items pertain to a single stimulus.

Stimulus materials may include brief text, maps, graphs, tables, or other graphic representations of data or scientific concepts. Many of the brief texts featured in both discrete items and item scenarios will be drawn from texts reflecting "the Great American Conversation." These texts may be directly excerpted from founding documents, such as The Bill of Rights, or they may contain analyses of these documents. They may also be drawn from other more contemporary primary and secondary source documents (e.g. political speeches and commentary) that convey important concepts about American civics.

Multiple choice (MC) items will be used to assess aspects of virtually every Social Studies Practice and Content Topic listed in the GED® Social Studies Assessment Targets. This item type continues to be a reliable, standardized method for measuring skills and knowledge at a range of cognitive levels. Unlike the multiple choice items on the 2002 Series GED® Test, the MC on the new assessment will only have four answer options, rather than five.

Fill-in-the-blank (FIB) items on the Social Studies Test give test-takers the opportunity to construct a very brief response, like a single word or a short phrase, when potential answers have little variability. For example, this item type can be used when an item requires a test-taker to identify a particular data point on a chart reflecting economic trends. It can also be used to excerpt a word or phrase from a text to demonstrate understanding of an idea or vocabulary term that could be inferred from a brief textual stimulus.

Cloze items with drop-down menu functionality embedded within a brief text will be used to give test-takers opportunities to choose the correct response to complete statements. As with editing tasks in the RLA Test, test-takers



The Social Studies
Assessment Targets and
Science Assessment
Targets are broken into a
two-ply system. The top
layer is the practices and
the second layer is the
content topics. Every item
will be aligned to one
practice and one content
topic.

"Many of the brief texts featured in both discrete items and item scenarios will be drawn from texts reflecting 'the Great American Conversation.' " are given the advantage of seeing the complete statements they create in an interactive manner on screen. These items can measure many of the same skills that fill-in-the-blank items can, though they provide a selection of possible responses from which test-takers can choose. This item type is especially effective for the purposes of assessing how well a test-taker can identify a logical conclusion drawn from text-based evidence or even make a generalization based on an author's argument.

Drag-and-drop items are another type of interactive task that require test-takers to move small images, words, or numerical expressions to designated drop targets on a computer screen. They may be used to assess how well a test-taker can make comparisons between concepts or representations of data or how well they classify or order information. For example, an individual drag-and-drop item may require a test-taker to place labels on a map to indicate important commodities produced in various regions. Other items might provide the test-taker an opportunity to place data points or labels drawn from a brief text onto a graph or chart.

Hot spot items consist of a graphic image with virtual "sensors" placed strategically within the image. They can be used to measure a test-taker's understanding of relationships between data points cited from a textual or graphic stimulus. They are also particularly effective for measuring a test-taker's ability to understand geographic concepts with regard to mapping. Other applications of hot-spot functionality might include asking test-takers to select data or points in a graph, chart, or table that support or refute a given conclusion stated in a brief textual stimulus.

Extended response (ER) items on the Social Studies Test will be 25-minute tasks that will require test-takers to analyze one or more source texts in order to produce a writing sample. These ERs will be scored on three dimensions as outlined in the Extended Response Multi-trait Scoring Rubric. The first trait on the rubric pertains to how well test-takers analyze arguments and gather evidence from the source text in support of the positions that they take in their writing samples. The second trait scores the writing samples on the basis of how well the writing is developed and organized. The writing samples are also scored for how well test-takers

"Unlike the multiple choice items on the 2002 Series GED® Test, the MC on the new assessment will only have four answer options, rather than five."

demonstrate fluency with conventions of Edited American English, per the third trait on the rubric. On the Social Studies Test, the first two traits of the rubric will be scored on a four-point scale, as on the RLA Test. However, the third trait that pertains to fluency with conventions will be scored on a two-point scale. The prompts for the ERs will be developed to elicit analytic writing that effectively uses evidence from the source text(s). For more information on how ERs will be scored, see the *Chapter Three: Extended Response Scoring Rubrics*.

Item Layouts

Item layouts are shown to highlight the structure of each item type described in the previous section. The content in the item layouts is not representative of the new GED® assessment and consists of placeholder copy.

Hot Spot Item (split screen)

This item layout shows a brief stimulus placed in a split screen with a number line graphic. The graphic contains one or more "sensor" regions, or hot spots, on which the testtakers can click in order to provide reponses to the question. In this example, the green circles represent the test-taker's answer to this item.



Question 2 of 13 (5050hotspot)

A teacher conducted an experiment in which he asked students questions about their reading

assignment. The table shows the number of questions each student answered correctly.

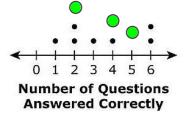
Experiment Data

Student	Number of Questions Answered Correctly
Jada	6
Harry	4
Dana	2
Tim	6
Patrick	3
Anita	2
Sara	1
Ruben	4
Kevin	5
Chip	2

The teacher made a dot plot of the data from the experiment. Complete the dot plot by adding the data for Ruben, Kevin, and Chip.

Click above the number line to plot the points.

Experiment Data



← Previous Next →

Drag-and-drop Item (split screen)

This example shows three drag tokens (the yellow stars) placed on the drop target (the chart on the right). In items that use this layout, the appearance and number of the drag tokens and the drop targets may vary, but all drag-and-drop items allow test-takers to interact with the material as they move objects around on the screen.



Question 1 of 13 (5050DND)

A teacher conducted an experiment in which he asked students questions about their reading assignment. The table shows the number of questions each student answered correctly.

Experiment Data

Student	Number of Questions Answered Correctly
Jada	6
Harry	4
Dana	2
Tim	6
Patrick	3
Anita	2
Sara	1
Ruben	4
Kevin	5
Chip	2

The teacher made a chart and put a gold star beside the name of each student who answered 5 or 6 questions correctly. Which students have a gold star beside their names?

Drag the star into the box next to the name of each student who earned a gold star.

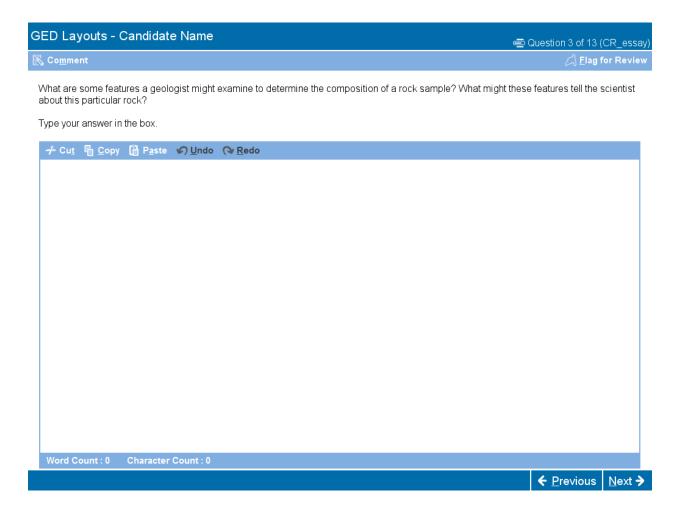
Gold Star Chart				
Jada	\star	Anita		
Harry		Sara		
Dana		Ruben		
Tim	\Rightarrow	Kevin	\bigstar	
Patrick		Chip		



Next →

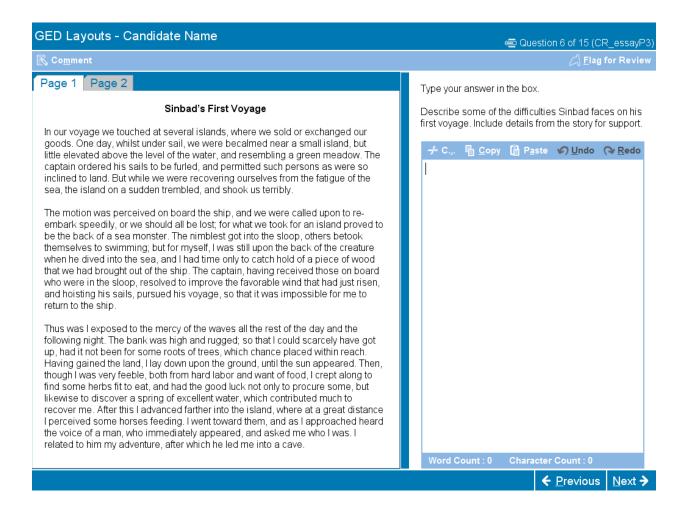
Short Answer Box

This item layout will be used primarily on the Science Test and will require test-takers to answer one or more questions in a brief written paragraph.



Passage and Response Box (split screen)

This item layout will be used to display both brief short answer (SA) items and longer extended response (ER) items. When used for SA items, the item will appear on the Science and RLA tests. When used for ER items, the item will appear on the RLA and Social Studies tests. Pages in passages will be tabbed so that test-takers can easily page through longer texts. Also, the question or prompt and instructions will be visible to test-takers as they read the passage.



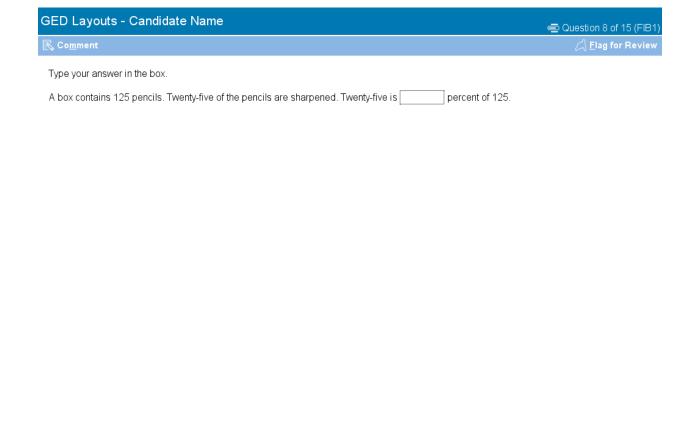
Short Answer/Fill-in-the-blank Combination Item

This item type will be used primarily on the RLA and Science tests. When test-takers are required to answer multiple-part questions using their own language, this item layout provides scaffolding to help guide test-takers to respond to all parts of the item.

GED Layouts - Candidate Name	Question 5 of 1	3 (CR_FIB)
S Comment Comment		or Review
Type your answers in the boxes.		
A baseball mass is 0.145 kilograms. The baseball is thrown at 40.6 meters per second.		
What is the kinetic energy (in joules) of the baseball?		
$E_k = \frac{1}{2} \cdot m \cdot v^2$		
joules		
Describe why a small change in the velocity of the baseball can have a greater impact on the kinetic energy than a sm the baseball. How will the kinetic energy of any object change if the mass is doubled? How will the kinetic energy of a velocity is doubled?		
→ Cut 🔓 Copy 🔓 Paste 🗷 Undo 🗘 Redo		
Word Count: 0		
	← <u>P</u> revious	<u>N</u> ext →

Fill-in-the-blank Item with Single Blank and an Embedded Response

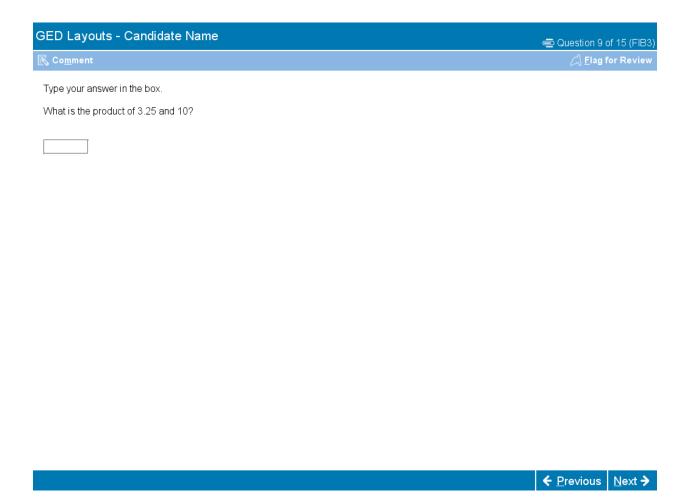
This item type requires test-takers to fill in a single blank.



← Previous Next →

Fill-in-the-blank Closed Stem Item with Single Blank

This item type requires test-takers to fill in a single blank.



Fill-in-the-blank Item with Multiple Blanks and **Embedded Responses**

This item type requires test-takers to fill in multiple blanks.

GED Layouts - Candidate Name	喜 Question 10 of 15 (FIB1_Multipleblanks)
Comment Comment	\Box <u>F</u> lag for Review
Type your answers in the boxes.	
A bag contains 12 marbles that are black, green, or white. The probability of randomly picking a gree picking a white marble is 50%. The bag contains 6 marbles, 4 marbles.	en marble is $\frac{1}{3}$. The probability of randomly marbles and 2

Fill-in-the-blank Closed Stem Item with **Multiple Blanks**

This item type requires test-takers to fill in multiple blanks.

GED Layouts - Candidate Name	Question 12 of 15 (FiBmultiple)
ß Co <u>m</u> ment	
Type your answers in the boxes.	
A breeder of rabbits is examining the genetics of rabbit coat color. Research shows that black (C) is domin is dominant to Himalayan and albino. Himalayan (ch) is dominant to albino. Albino (c) is recessive.	nant to all other colors. Chinchilla (c³)
A homozygous black rabbit mates with a homozygous chinchilla rabbit. What is the likelihood that each offs	spring will be a certain color?
black%	
chinchilla	
Himalayan%	
albino%	

Multiple Choice Item and a Passage (split screen)

This layout will appear primarily on the RLA Test. However, item scenarios in which two or three items pertain to a single, brief text or graphic stimulus will appear in a similar format on the Mathematics, Science and Social Studies tests.

GED Layouts - Candidate Name

Question 11 of 15 (MCsplit)

Spain has opened the first 24-hour industrial scale solar thermal plant.

The concept is very different from what most people think of as solar power. Most people think of solar panels. These produce electricity by exciting a compound with sunlight and that excited compound causes electrons to flow, producing electricity. This process is called photovoltaics.

Solar thermal is very different. By concentrating the sunlight reflecting off thousands of mirrors onto a small area results in that area getting very, very hot. By capturing and storing that heat, the facility can use the heat to boil water, producing steam and generating electricity using standard steam turbines.

This has several advantages over photovoltaics. The first is simplicity. Steam driven turbines are a well understood technology. People trained in energy production from other sources (coal, gas, and nuclear) can transfer their skills. Also, the sunlit part is only mirrors, not solar panels or other high-tech system, just simple mirrors.

Second, the system generates a lot of heat. In reality, every energy system in use today is based around capturing the work done by flowing heat energy. Basically, heat moves from hot things to cold things until they are the same temperature. Work is done by capturing that flow of heat and transforming some of it into a different form of energy (electricity or the motion of cars). The greater the temperature difference, the better for capturing the energy

Third, it is possible to store heat. That is the real trick to this system. It uses a salt (not table salt, a chemical salt) that is heated to the melting point by the solar mirrors. The salt is the heat storage system. Since the salts used (potassium nitrate and sodium nitrate) melt between 304°C and 334°C (that is 579°F and 633°F) they can turn water into very high pressure steam easily.

These salts also retain that heat very well. This Spanish system is rated for electricity production for 15 hours even without any sunlight. It retains up to 99% From the information given, which statement describes an advantage of solar thermal power plants for developing countries?

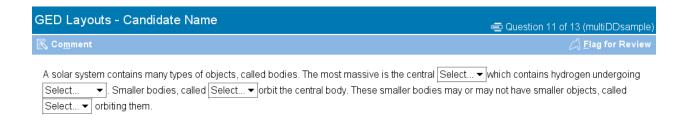
- Many developing countries are near the ocean and have a ready supply of salt for use in a solar thermal plant.
- OB. Solar thermal plants can store heat for long periods of time, so developing countries have a constant supply of power.
- Many developing countries are in warm climates and a solar thermal plant can generate more electricity when it is hot.
- OD. Solar thermal plants are relatively simple. so developing countries do not have to have a complex infrastructure to build this kind of plant.

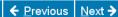
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Cloze Item

In this item type, test-takers will choose their answers from a drop-down menu that will appear embedded within text. This item layout will be applied to editing items within the RLA Test and will also appear on the other content area tests.





Terminology Short Reference for GED® Assessment Content

Content Frameworks

Instructional standards: Refers to nationally recognized career- and college-readiness academic content standards, such as the Common Core State Standards (CCSS) and similar standards implemented in states like Texas and Virginia that have not adopted the CCSS. Instructional standards were designed to inform classroom instruction in the K-12 educational system. They describe both the breadth and depth of mathematics and English-language arts and literacy skills that are most predictive of a student's success in post-secondary education and a wide range of career pathways.

These skills are also important for the success of adult learners seeking to achieve their GED® credential. The GED® Mathematical Reasoning and Reasoning Through Language Arts Assessment Targets have been derived from these college- and career-readiness instructional standards, and the standards also inform the key skills identified for measurement in the GED® Science and Social Studies Assessment Targets.

- The complete CCSS can be found at http://www.corestandards.org
- The Texas College- and Career-Readiness Standards can be found at http://www.thecb.state.tx.us/collegereadiness/crs.pdf
- The Virginia Standards of Learning can be found at http://www.doe.virginia.gov/testing/sol/standards_docs/index.shtml

Note: Currently, 44 states have adopted the CCSS to guide instruction for their K-12 educational systems. Of the states that have not adopted CCSS, Texas and Virginia have also adopted college- and career-readiness instructional standards.

Assessment targets: Because the CCSS are designed to be instructional standards, they describe some skills that cannot be measured on a large-scale standardized

"The GED® Mathematical Reasoning and Reasoning Through Language Arts Assessment Targets have been derived from these college- and career-readiness instructional standards, and the standards also inform the key skills identified for measurement in the GED® Science and Social Studies Assessment Targets."

assessment. For instance, understanding an excerpt in the context of a book-length text is an important skill for high school graduates to have mastered. Naturally, due to the time constraints, we cannot include whole books as sources on the GED® test. Therefore, the Assessment Targets for Mathematics, RLA, Science, and Social Studies provide a complete description of the skills and knowledge that will be measured on the next-generation GED® test. Though aligned to nationally recognized career- and college-readiness instructional standards, they focus on a core set of skills and abilities that can be measured reliably and validly in a large-scale standardized assessment. Evidence, such as the data presented in the National Curriculum Survey, strongly indicates that proficiency with the core skills identified in the assessment targets is predictive of success in a wide range of both career and postsecondary educational pathways.

Domain: High-level academic content categories within the Assessment Target documents. For example, the RLA Assessment Targets document contains three domains: reading, writing, and language. The Mathematics Assessment Targets include two domains: quantitative skills and algebraic skills. Each content target fits within a domain. (See *Chapter Two: Assessment Targets* for more detail.)

Target: Describes the academic content that will be measured on the new GED® assessment. Each target may contain one or more specific skills, which are identified in item-level indicators. For example, in the RLA content area, these targets are derived from the Anchor Standards, each of which comprises broad categories of instructional standards in the CCSS and Texas and Virginia state standards. (See *Chapter Two: Assessment Targets* for more detail.)

Indicator: Fine-grained descriptions of specific skills that will be assessed in individual test items. (See *Chapter Two: Assessment Targets* for more detail.)

Depth of Knowledge: The new GED® assessment will apply a Depth of Knowledge (DOK) model of cognitive levels to measure the content in mathematics, science, social studies, and RLA. The DOK levels of individual items will reflect the cognitive complexity—not the difficulty—of the tasks. The DOK levels will also be assigned to items on the basis of the cognitive demands of the targeted skill to which the item is

aligned. (See *Chapter Two: Depth of Knowledge Summary* for more detail.)

Item Types and Scoring Processes

Extended response (ER) item: Allow test-takers to demonstrate their written communication skills and analysis of text at a high DOK level by producing a writing sample in response to a prompt. There will be two ERs in the new GED® assessment: one on the RLA Test, the other on the Social Studies Test. Both ERs will require test-takers to respond to textual source materials.

Prompt: A prompt is a statement or a series of statements designed to elicit a written response from a test-taker. On the new GED® assessment, all prompts will require the test-taker to analyze and draw evidence and detail from one or more brief source texts accompanying the prompt. This will allow test-takers to demonstrate their ability to construct and support arguments they make within their extended responses.

Extended response scoring rubric: All of the ERs on the new GED® assessment will be scored using a multiple-trait scoring rubric. The rubric describes the skill levels demonstrated in test-taker responses in three dimensions or traits:

- 1) Analyzing Arguments and Using Evidence
- 2) Developing Ideas and Structure
- 3) Clarity and Conventions

(See *Chapter Three: Extended Response Scoring Rubrics* for more detail.)

Short answer (SA) item: The Science and RLA tests will feature SA items that will allow us to measure higher-level cognitive skills. These short-answer items will require test-takers to write a short paragraph in response to questions based on either (or both) graphic or textual stimuli.

Short answer scoring guide: Each SA will include its own scoring guide. The scoring guides will be composed of extensive lists of possible correct responses and will be specific to the items themselves. Lists of correct test-taker

answers will be informed and populated by real responses observed during the rangefinding process.

Rangefinding: For each SA and ER item, a committee of subject matter experts will review a selection of test-taker responses taken from field-testing. These experts will determine the range of responses that represent each score point in the ER scoring rubric and the SA scoring guides. Representative responses from the rangefinding pool will comprise sets of exemplars used to train scorers.

Technology-enhanced (TE) item: Because the new GED[®] assessment will be administered on a computer-based platform, we have the opportunity to assess a wide range of content more deeply and authentically with TE item types. These items create interactive tasks that require test-takers to manipulate aspects of the items on their computer screens. The types of TE items that appear on the new GED[®] test include drag-and-drop items, hot-spot items, cloze items, fill-in-the-blank items, and multiple select items.

Drag-and-drop item: Drag-and-drop items are composed of two main parts: drag tokens and drop targets. Test-takers are typically given several drag tokens, which they must place on one or more specified drop targets. This item type may be employed in the service of sequencing or re-ordering tasks, graphing tasks, mapping tasks, and many others. This item type can be an effective tool that enables test-takers to interact with academic content in real-world situations, such as reordering paragraphs in a letter to improve the letter's organization.

Hot spot item: Hot spot items typically contain a graphic (e.g. maps, graphs, diagrams, etc.) with virtual "sensors" placed in key locations on the graphic. The test-taker selects the correct answer by clicking on the designated sensor or by graphing a point onto it. This interactive item type allows test-takers to respond to graphic stimuli in a way that mirrors real-life situations, such as selecting locations on a map or gathering data from a graph.

Cloze item: Cloze items contain response opportunities embedded directly within a text. The new GED® assessment will employ this item type primarily to assess language skills in tasks designed to mimic the editing process in an authentic manner. The items will present a brief text with five to eight drop-down menus embedded within. The drop-down

menus will contain several answer options which, when selected, will appear within the text itself.

Fill-in-the-blank (FIB) item: Fill-in-the-blank items are, in essence, very brief short answer items. They will require the test-taker to supply a word, short phrase, or numerical answer in response to an open-stem question. This item type can be used to assess a wide variety of skills. These items allow test-takers to construct their own responses when there is little variability in correct answers.

Multiple choice (MC) item: MC items will continue to appear on all four content areas of the new GED[®] assessment. Each MC item will have four answer options with only one correct answer.

Passage sets: The RLA Test will be composed of several passage sets. Each passage set will contain six to eight items that will be associated with a reading passage.

Item scenarios: The Mathematics, Science, and Social Studies tests will all feature item scenarios. An item scenario will be made up of a stimulus and two to three associated items. Stimuli may be a short text, a graphic, or a combination of graphic and short text.

Discrete item: The Mathematics, Science, and Social Studies tests will also include discrete items, or single items that may or may not have a stimulus embedded in their stems.